Enabling The Standard for Automated Demand Response

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OpenADR Alliance Overview

- 100+ member organization comprised of a diverse set of industry stakeholders interested in fostering global OpenADR adoption

- Foster global development, adoption, and compliance of Open Automated Demand Response (OpenADR) standards through collaboration, education, testing, and certification.

- Leverages Smart Grid-related standards efforts from SGIP, OASIS, UCAlug and NAESB

- Enables stakeholders to participate in automated DR, dynamic pricing, and electricity grid reliability
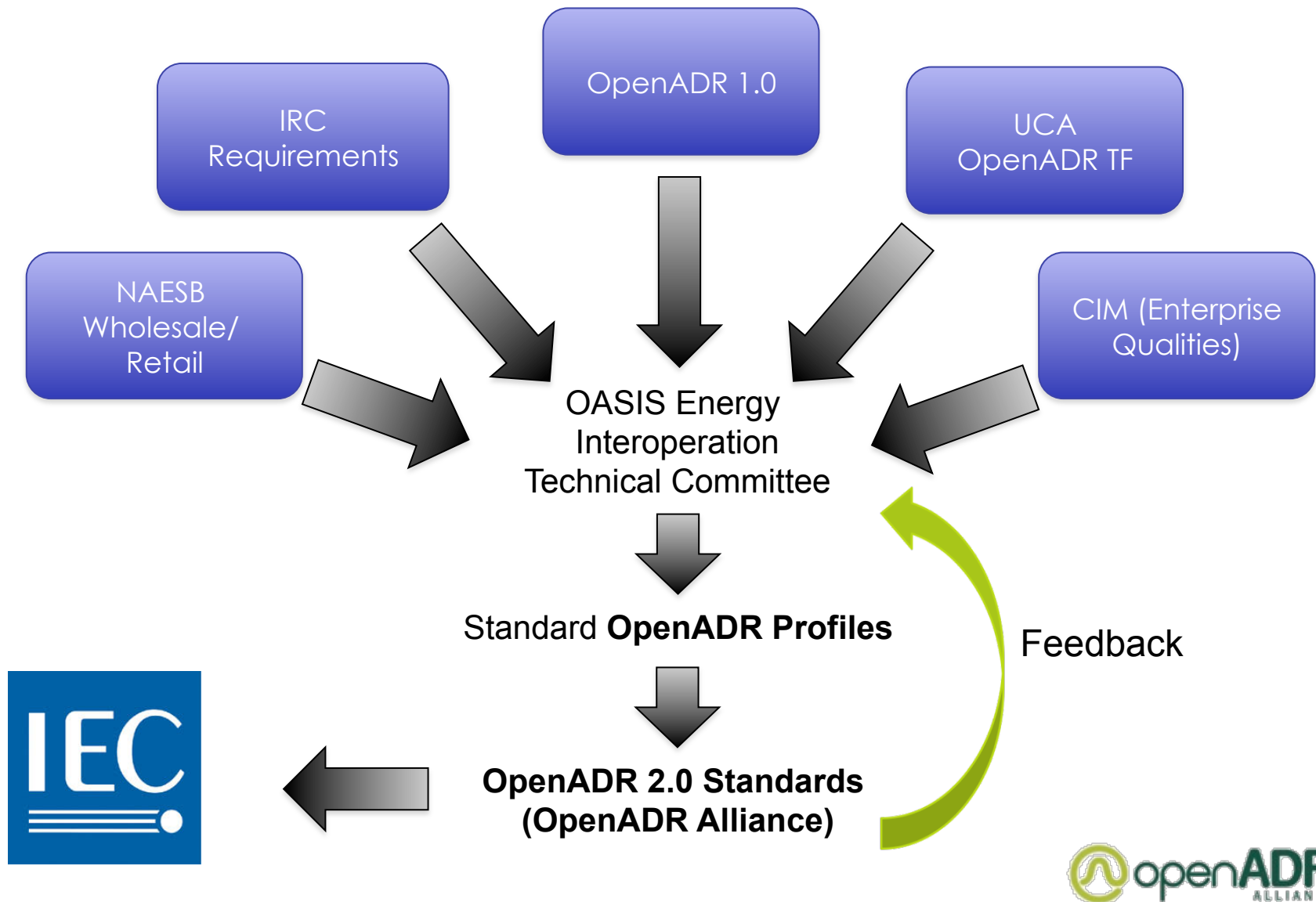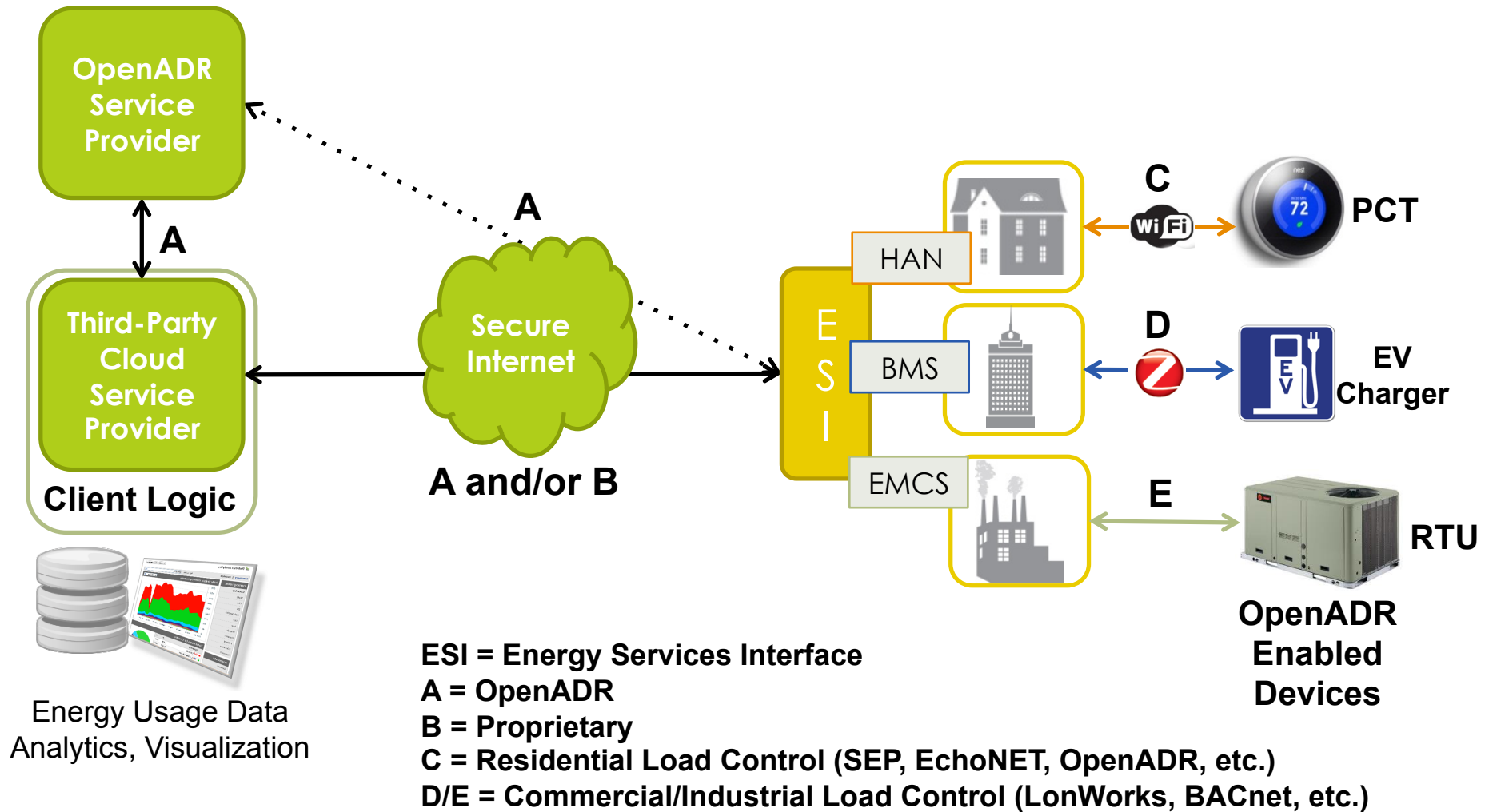
Alliance Goals

- Coordination with standards organizations for development of OpenADR technologies

- Implementation of global testing and compliance

- Education on the standards, implementation, policy and markets

- Adoption and market acceptance and of OpenADR

Enabling Global Scaling of Automated Demand Response To Meet Generation Needs for Peak and Renewable Integration

OpenADR 2.0
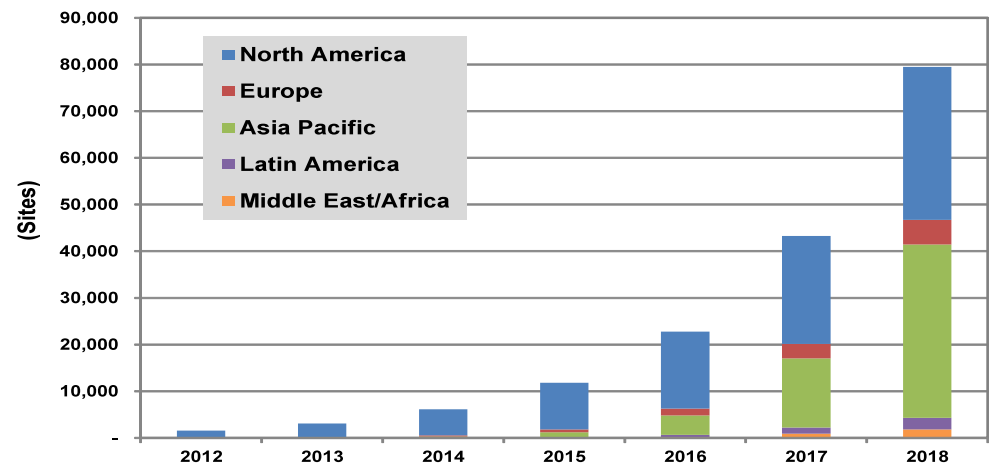
IRC Requirements

OpenADR 1.0

UCA OpenADR TF

NAESB Wholesale/ Retail

CIM (Enterprise Qualities)

OASIS Energy Interoperation Technical Committee

Standard **OpenADR Profiles**

Feedback

OpenADR 2.0 Standards (OpenADR Alliance)

IEC

Information Interoperability

OpenADR Service Provider

Third-Party Cloud Service Provider

Client Logic

Energy Usage Data Analytics, Visualization

Secure Internet

A and/or B

A

ESI

HAN

BMS

EMCS

C

PCT

WiFi

D

EV Charger

E

RTU

OpenADR Enabled Devices

ESI = Energy Services Interface
A = OpenADR
B = Proprietary
C = Residential Load Control (SEP, EchoNET, OpenADR, etc.)
D/E = Commercial/Industrial Load Control (LonWorks, BACnet, etc.)

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Factors Driving Adoption

- OpenADR 2.0 is an industry standard

- Over 100 companies are developing OpenADR products

- Solutions will be cost competitive due to standardized interfaces from multiple suppliers

- Title 24 requires *automatic demand shed controls* in most buildings

- California IOUs are developing OpenADR programs

- Utilities and system operators worldwide are adopting OpenADR

Conclusion

- **Standardize** the interface between electricity markets and customers

- **Automate** the customer resource to fluctuating energy prices and grid instability

- **Simplify** your energy future and maximize the value of your DR capacity

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Thank You!

Q&A

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